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OM protein - protein search, using sw model

Run on: April 24, 2002, 09:00:12 ; Search time 76.05 Seconds
(without alignments)
156.815 Million cell updates/sec

Title: US-09-525-998A-2_COPY_41_201
Perfect score: 941
Sequence: 1 DSVCPQGKYIHPQNNSICCT ... CSNCKKSLECTKICLPQIEN 161

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 522463 seqs, 74073290 residues

Total number of hits satisfying chosen parameters. 522463

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_1101:*
1: /SIDS2/gcgdata/geneseq/geneseqp/AA1980.DAT:*
2: /SIDS2/gcgdata/geneseq/geneseqp/AA1981.DAT:*
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21: /SIDS2/gcgdata/geneseq/geneseqp/AA2000.DAT:*
22: /SIDS2/gcgdata/geneseq/geneseqp/AA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	941	100.0	161	13	AAR27496	Native 30 kD TNF i
2	941	100.0	161	19	AAW59664	Human soluble tumo
3	941	100.0	161	19	AAW52267	Soluble tumour nec
4	941	100.0	161	20	AAW89233	Tumour necrosis in
5	941	100.0	161	22	AAB37676	Human 30 kDa TNF i
6	941	100.0	211	20	AAW89225	Tumour necrosis fa
7	941	100.0	289	22	AAB66979	Tnfrl protein. Un
8	941	100.0	309	16	AAR70108	TNF-R-CBPH fusion
9	941	100.0	311	20	AAW89229	Tumour necrosis fa
10	941	100.0	336	18	AAW33360	TBP(20-190)/hCG-be
11	941	100.0	366	20	AAW89228	Tumour necrosis fa
12	941	100.0	371	11	AAR07449	Tumour Necrosis Fa
13	941	100.0	397	20	AAW89227	Tumour necrosis fa
14	941	100.0	417	20	AAW89226	Tumour necrosis fa
15	941	100.0	420	20	AAW89224	Tumour necrosis fa
16	941	100.0	451	16	AAR70107	TNF-R-CBP 130 fusi
17	941	100.0	455	12	AAR10986	30kD TNF inhibitor
18	941	100.0	455	12	AAR11082	Human 55kD TNF-bin
19	941	100.0	455	13	AAB20787	TNF alpha binding
20	941	100.0	455	13	AAR24000	TNF-alpha 55kD rec
21	941	100.0	455	14	AAR42059	Lambda derived TNF
22	941	100.0	455	16	AAR70084	p55 TNF R. Homo s
23	941	100.0	455	20	AAY30924	Human tumour necro
24	941	100.0	455	21	AAB36266	Human tumour necro
25	941	100.0	455	21	AAB37800	Human tumour necro
26	941	100.0	455	21	AAB26984	Human TNFR 1. Hom
27	941	100.0	455	21	AAB23446	Human tumour necro
28	941	100.0	455	21	AAB01336	TNF-R1 death recep
29	941	100.0	455	22	AAB36697	Human tumour necro
30	941	100.0	455	22	AAB37677	Human 30 kDa TNF i
31	941	100.0	547	16	AAR70104	TNF-R-CBPH fusion
32	941	100.0	884	16	AAR70106	TNF-R-CBP 130 fusi
33	941	100.0	900	16	AAR70103	TNF-R-CBP 130 fusi
34	941	100.0	1245	16	AAR70106	TNF-R-PI, vivax Du
35	941	100.0	1604	16	AAR70105	TNF-R-EBA 175 fusi
36	938	99.7	455	11	AAR07451	Human Tumour Necro
37	932	99.0	433	14	AAR51032	Mutant p55 tumour
38	932	99.0	443	14	AAR51033	Mutant p55 tumour
39	932	99.0	455	14	AAR42197	p55 Tumour necrosi
40	932	99.0	455	14	AAR51034	Mutant p55 tumour
41	931	98.9	455	12	AAR12550	Type I TNF recepto
42	930.5	98.9	909	19	AAW64485	Human Fas protein.
43	930	98.8	199	13	AAB24080	Truncated TNF alph
44	928	98.6	285	18	AAW33359	TBP(20-190)/hCG-al
45	925.5	98.1	153	22	AAB50895	Human TNFR 1. Hom

ALIGNMENTS

RESULT 1
AAR27496
ID AAR27496 standard; protein; 161 AA.
XX
AC AAR27496;
XX
DT 09-MAR-1993 (first entry)
XX
DE Native 30 kD TNF inhibitor.
XX
KW Tumour necrosis factor; ethylene glycol; pharmacokinetic;
KW adult respiratory distress syndrome; rheumatoid arthritis;
KW septic shock; pulmonary fibrosis; spacer.
XX
OS Homo sapiens.
XX
PN WO9216221-A.
XX
PD 01-OCT-1992.
XX
PF 13-MAR-1992; 92WO-US02122.
XX
PR 15-MAR-1991; 91US-0669862.
PR 17-JAN-1992; 92US-0822296.
XX
PA (SYNB) SYNERGEN INC.
XX
PI Armes LG, Brewer MT, Evans RJ, Kohno T, Thompson RC;
XX
DR WPI, 1992-348933/42.
XX
PT New ethylene glycolated polypeptide(s) with improved
PT pharmacokinetic properties for treating e.g. TNF and IL-1
PT mediated diseases, e.g. adult respiratory distress syndrome,

PT rheumatoid arthritis, septic shock etc.
XX
PS Claim 54; Fig 2; 100pp; English.
XX
CC The sequence shows a native 30 kD TNF inhibitor which may be
CC modified to contain at least one non-native cysteine residue, pref
CC at positions 1, 14, 105, 111 and/or 165. The non-native cysteine is
CC joined to a non-peptidic polymer, pref monomethoxy PEG via
CC thio-ether bonds. Two such TNF inhibitor mols. may be linked via
CC this non-peptidic spacer. The modified polypeptides show improved
CC pharmokinetic properties, i.e. increased mol. wt. hence reduced
CC clearance rate following s.c. or systemic administration, increased
CC sol. of native TNF inhibitors, and reduced antigenicity. The
CC polypeptides may be used for treatment of TNF mediated diseases such
CC as adult respiratory distress syndrome, pulmonary fibrosis, rheumatoid
CC arthritis, inflammatory bowel disease and septic shock. The same
CC method may be applied to the interleukin 1 receptor antagonist
CC IL-1ra. See also AAR27495.
XX
SQ Sequence 161 AA;

Query Match 100.0%; Score 941; DB 13; Length 161;
Best Local Similarity 100.0%; Pred. No. 1.6e-67;
Matches 161; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
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Db 1 dsvcpqgkyihpqnnsicctkchkgtylyndcpgpgqdtdcrececsgsftasenhlrhcl 60

Qy 61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 61 scskcrkemgqveisscтvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 120

Qy 121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
|||||||||||||||||||||||||||||||||||||||||
Db 121 kqntvctchagfflrenecvscsnckkslectklclpqien 161

RESULT 2
AAW59664
ID AAW59664 standard; Protein; 161 AA.
XX
AC AAW59664;
XX
DT 28-SEP-1998 (first entry)
XX
DE Human soluble tumour necrosis factor receptor type I
XX
KW Human; tumour necrosis factor; TNF; TNF receptor type I;
KW inflammatory disease; leukaemia; TNF binding protein;
KW anti-inflammatory drug; methotrexatess.
XX
OS Homo sapiens.
XX
PN WO9824463-A2.
XX
PD 11-JUN-1998.
XX
PF 08-DEC-1997; 97WO-US22733.
XX
PR 09-JUL-1997; 97US-0052023.
PR 06-DEC-1996; 96US-0032587.
PR 23-JAN-1997; 97US-0036355.
PR 07-FEB-1997; 97US-0039315.
XX
PA (AMGE-) AMGEN INC.
XX
PI Bendele AM, Edwards CK, Sennello RM;
XX
DR WPI; 1998-333039/29.
DR N-PSDB; AAV41548.
XX
PT Treatment of acute or chronic inflammatory disease, e.g. leukaemia -
PT by administering tumour necrosis factor binding protein and at least
PT one additional anti-inflammatory drug, e.g. methotrexate
XX
PS Disclosure; Fig 1; 104pp; English.
XX
CC This is the amino acid sequence of the human tumour necrosis factor
CC receptor type I, used in the method of the invention involving the
CC treatment of acute or chronic inflammatory disease such as leukaemia
CC by administering tumour necrosis factor binding protein and at least
CC one additional anti-inflammatory drug, e.g. methotrexate.
XX
SQ Sequence 161 AA;

Query Match 100.0%; Score 941; DB 19; Length 161;
Best Local Similarity 100.0%; Pred. No. 1.6e-67;
Matches 161; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 1 dsvcpqgkyihpqnnsicctkchkgtylyndcpgpgqdtdcrececsgsftasenhlrhcl 60

Qy 61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 61 scskcrkemgqveisscтvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 120

Qy 121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
|||||||||||||||||||||||||||||||||||||||||
Db 121 kqntvctchagfflrenecvscsnckkslectklclpqien 161

RESULT 3
AAW52267
ID AAW52267 standard; Protein; 161 AA.
XX
AC AAW52267;
XX
DT 29-JUN-1998 (first entry)
XX
DE Soluble tumour necrosis factor receptor.
XX
KW Soluble tumour necrosis factor receptor; sTNFR; TNF-mediated disease;
KW tumour necrosis factor binding protein; autoimmune disease; arthritis;
KW adult respiratory distress syndrome; cachexia/anorexia; cancer; therapy;
KW chronic fatigue syndrome, graft rejection, Alzheimer's disease; TNBP.
XX
OS Homo sapiens.
XX
PN WO9801555-A2.
XX
PD 15-JAN-1998.
XX
PF 09-JUL-1997; 97WO-US12244.
XX
PR 04-MAR-1997; 97US-0039792.
PR 09-JUL-1996; 96US-0021443.
PR 06-DEC-1996; 96US-0032534.
PR 23-JAN-1997; 97US-0037737.
PR 07-FEB-1997; 97US-0039314.
XX
PA (AMGE-) AMGEN INC.
XX
PI Edwards CK, Fisher EF, Kieft GL;
XX
DR WPI; 1998-101052/09.
DR N-PSDB; AAV19801.
XX
PT Truncated and soluble forms of tumour necrosis factor receptor -
PT useful for treating diseases involving factor, e.g. arthritis and
PT adult respiratory distress syndrome
XX
PS Claim 1; Fig 1; 205pp; English.

```
XX
CC   This sequence is the human soluble tumour necrosis factor receptor
CC   (sTNFR). The protein was used to make the truncated sTNFR proteins of the
CC   invention. The truncated sTNFR proteins and tumour necrosis factor
CC   binding proteins (TNBP) are used to treat any TNF-mediated disease,
CC   e.g. arthritis, adult respiratory distress syndrome, cachexia/anorexia,
CC   cancer, chronic fatigue syndrome, graft rejection, Alzheimer's disease
CC   and other autoimmune diseases. Cells transformed with a vector containing
CC   DNA encoding the protein may be used for production of recombinant sTNFR,
CC   which may also be used for measuring the amount of sTNFR in samples and
CC   to raise antibodies against sTNFR. TNBP may also be used in preparation
CC   of therapeutic compositions for treating the above diseases. The sTNFR
CC   proteins are well suited to large scale production (since they lack the
CC   deamidation site in region 111-126, so are more stable in vivo); contain
CC   fewer disulphide bonds and fewer epitopes, making them less antigenic
CC   than full-length proteins.
XX
SQ   Sequence   161 AA;


  Query Match           100.0%;  Score 941;  DB 19;  Length 161;
  Best Local Similarity  100.0%;  Pred. No. 1.6e-67;
  Matches  161;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db      61 scskcrkemqqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 120

Qy     121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
             |||||||||||||||||||||||||||||||||||||||||
Db     121 kqntvctchagffirenecvscsnckkslectklclpqien 161


RESULT   4
AAW89233
ID   AAW89233 standard; Protein; 161 AA.
XX
AC   AAW89233;
XX
DT   04-MAR-1999  (first entry)
XX
DE   Tumour necrosis inhibitor 30 kDa protein.
XX
KW   Tumour necrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin;
KW   OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
KW   inflammation; apoptosis.
XX
OS   Homo sapiens.
XX
PN   WO9849305-A1.
XX
PD   05-NOV-1998.
XX
PF   29-APR-1998;   98WO-US08631.
XX
PR   01-MAY-1997;   97US-0850188.
XX
PA   (AMGE-) AMGEN INC.
XX
PI   Boyle WJ,  Wooden S;
XX
DR   WPI; 1999-034661/03.
DR   N-PSDB; AAV81732.
XX
PT   New chimeric osteoprotegerin polypeptides - contain the
PT   osteoprotegerin dimerisation domain and a heterologous sequence,
PT   useful to treat TNF and TNFR-mediated disorders
XX
PS   Disclosure; Fig 2; 92pp; English.
XX
CC   The present invention describes a chimeric polypeptide (A1), comprising
CC   an osteoprotegerin (OPG) dimerisation domain fused to a heterologous
CC   amino acid sequence. Also described are: (1) a multimer polypeptide
CC   comprising covalently associated A1 monomers; (2) an isolated nucleic
CC   acid encoding A1; (3) an expression vector comprising the nucleic acid
CC   sequence; and (4) a host cell transformed or transfected with the
CC   expression vector so that the nucleic acid is expressible. The products
CC   from the present invention are useful to treat a variety of disorders
CC   including those related to receptor binding. Compositions comprising
CC   tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras
CC   are used to treat TNF and TNFR mediated disorders such as inflammation,
CC   autoimmune diseases and disorders related to excessive apoptosis. The
CC   chimeras are also useful for detecting molecules which interact with
CC   fused heterologous sequences to identify potential new receptors and
CC   ligands. The present sequence represents the TNF inhibitor 30 kDa
CC   protein.
XX
SQ   Sequence   161 AA.


  Query Match           100.0%;  Score 941;  DB 23;  Length 161;
  Best Local Similarity  100.0%;  Pred. No. 1.6e-67;
  Matches  161;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 dsvcpqgkyihpqnnsictkchkgtylyndcpgpgqdtdcrecesgsftasenhlrhcl 60

Qy      61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 scskcrkemqqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 120

Qy     121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
             |||||||||||||||||||||||||||||||||||||||||
Db     121 kqntvctchagffirenecvscsnckkslectklclpqien 161


RESULT   5
AAB37676
ID   AAB37676 standard; protein; 161 AA.
XX
AC   AAB37676;
XX
DT   02-MAR-2001  (first entry)
XX
DE   Human 30 kDa TNF inhibitor.
XX
KW   TNF inhibitor; antiinflammatory; Tumour Necrosis Factor; interleukin;
KW   IL-1; inflammatory disease; degenerative disease; human.
XX
OS   Homo sapiens.
XX
PN   US6143866-A.
XX
PD   07-NOV-2000.
XX
PF   19-JAN-1995;   95US-0375242.
XX
PR   19-JUL-1990;   90US-0555274.
PR   09-JUL-1993;   93US-0090366.
PR   18-JUL-1989;   89US-0381080.
PR   11-DEC-1989;   89US-0450329.
PR   07-FEB-1990;   90US-0479661.
XX
PA   (AMGE-) AMGEN INC.
XX
PI   Squires C,  King MW,  Hale KK,  Brewer MT,  Thompson RC;
PI   Vanderslice RW,  Vannice J,  Kohno T;
XX
DR   WPI; 2001-006443/01.
DR   N-PSDB; AAC84945.
XX
```

PT Novel 30 kDa tumor necrosis factor inhibitor analog comprising a
PT non-native cysteine residue cross-linked with polyethylene glycol,
PT useful for treating inflammatory and degenerative diseases mediated by
PT TNF -
XX
PS Claim 1; Fig 19; 82pp; English.
XX
CC The present invention relates to Tumour Necrosis Factor (TNF) inhibitors
CC (see AAB37676 and AAB37685), which have TNF inhibitory activity. The
CC novel TNF inhibitors of the present invention are useful as therapeutic
CC agents for inhibiting the activity of TNF and interleukin (IL-1), and
CC for treating inflammatory and degenerative diseases mediated by TNF. The
CC 30 kDa TNF inhibitor can inhibit TNF alpha.
XX
SQ Sequence 161 AA;

Query Match 100.0%; Score 941; DB 22; Length 161;
Best Local Similarity 100.0%; Pred. No. 1.6e-67;
Matches 161; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 dsvcpqgkyihpqnnsicctkchkgiylyndcpgpgqdtdcrecesgsftasenhlrhcl 60

Qy 61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
Db 61 scskcrkemgqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 120

Qy 121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
Db 121 kqntvctchagfflrenecvscsnckkslectklclpqien 161

RESULT 6
AAW89225
ID AAW89225 standard; Protein; 211 AA.
XX
AC AAW89225;
XX
DT 04-MAR-1999 (first entry)
XX
DE Tumour necrosis factor bp/osteoprotegerin construct TNFbp 4.0.
XX
KW Tumour necrosis factor receptor 1, TNFR-1, inhibitor, osteoprotegerin,
KW OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
KW inflammation; apoptosis.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9849305-A1.
XX
PD 05-NOV-1998.
XX
PF 29-APR-1998; 98WO-US08631.
XX
PR 01-MAY-1997; 97US-0850188.
XX
PA (AMGE-) AMGEN INC.
XX
PI Boyle WJ, Wooden S;
XX
DR WPI; 1999-034661/03.
XX
PT New chimeric osteoprotegerin polypeptides - contain the
PT osteoprotegerin dimerisation domain and a heterologous sequence,
PT useful to treat TNF and TNFR-mediated disorders
XX
PS Example 1; Fig 4; 92pp; English.
XX
CC The present invention describes a chimeric polypeptide (A1), comprising
CC an osteoprotegerin (OPG) dimerisation domain fused to a heterologous
CC amino acid sequence. Also described are: (1) a multimer polypeptide
CC comprising covalently associated A1 monomers; (2) an isolated nucleic
CC acid encoding A1, (3) an expression vector comprising the nucleic acid
CC sequence, and (4) a host cell transformed or transfected with the
CC expression vector so that the nucleic acid is expressible. The products
CC from the present invention are useful to treat a variety of disorders
CC including those related to receptor binding. Compositions comprising
CC tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras
CC are used to treat TNF and TNFR-mediated disorders such as inflammation,
CC autoimmune diseases and disorders related to excessive apoptosis. The
CC chimeras are also useful for detecting molecules which interact with
CC fused heterologous sequences to identify potential new receptors and
CC ligands. The present sequence represents a TNFbp/OPG construct from
CC the example of the present invention for creating TNFbp/OPG fusion
CC proteins.
XX
SQ Sequence 211 AA;

Query Match 100.0%; Score 941; DB 20; Length 211;
Best Local Similarity 100.0%; Pred. No. 2e-67;
Matches 161; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DSVCPQGKYIHPQNNSICCTKCHKGIYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
Db 41 dsvcpqgkyihpqnnsicctkchkgiylyndcpgpgqdtdcrecesgsftasenhlrhcl 100

Qy 61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
Db 101 scskcrkemgqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 160

Qy 121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
Db 161 kqntvctchagfflrenecvscsnckkslectklclpqien 201

RESULT 7
AAB66979
ID AAB66979 standard; Protein; 280 AA.
XX
AC AAB66979;
XX
DT 18-APR-2001 (first entry)
XX
DE Tnfrl protein.
XX
KW Bone loss; osteoprotegerin; OPG; rheumatoid arthritis; hyperalgesia;
KW multiple sclerosis, osteoporosis; osteomyelitis; asthma; inflammation;
KW systemic lupus erythematosus, graft-versus-host disease; septic shock;
KW acute pancreatitis; Alzheimer's disease; anorexia; atherosclerosis; pain;
KW coronary condition; myocardial infarction; cancer; diabetes; psoriasis;
KW endometriosis; fever; glomerulonephritis; inflammatory bowel disease;
KW ischaemia; Parkinson's disease.
XX
OS Unidentified.
XX
PN WO200103719-A2.
XX
PD 18-JAN-2001.
XX
PF 07-JUL-2000; 2000WO-US18667.
XX
PR 09-JUL-1999; 99US-0350670.
PR 09-DEC-1999; 99US-0457647.
XX
PA (AMGE-) AMGEN INC.
XX
PI Boyle WJ, Lacey DL, Calzone FJ, Chang M, Senaldi G;
XX
DR WPI; 2001-103031/11.
XX
PT Treating conditions leading to bone loss such as rheumatoid arthritis,
PT multiple sclerosis and asthma, comprises administering an

```
PT   osteoprotegerin protein in conjunction with e.g. inhibitors of
PT   interleukin and tumor necrosis factor alpha -
XX
PS   Disclosure; Fig 2; 316pp; English.
XX
CC   The present invention relates to a method for treating conditions leading
CC   to bone loss. The method comprises administering a purified and isolated
CC   osteoprotegerin (OPG) protein (AAE57836-AAE57838 and AAB66474-AAB66476)
CC   in conjunction with other substances such as tumour necrosis factor-alpha
CC   (TNF-alpha) inhibitors, interleukin (IL)-6, -8 and -18 inhibitors, ICE
CC   modulators, fibroblast growth factor (FGF)1-10 modulators and/or platelet
CC   activating factor (PAF) antagonists. The method is useful for treating
CC   conditions leading to bone loss such as rheumatoid arthritis, multiple
CC   sclerosis, osteoporosis, osteomyelitis and asthma. The method is also
CC   useful for treating inflammation, systemic lupus erythematosus (SLE) and
CC   graft-versus host disease (GvHD). Other diseases that can be treated
CC   include acute pancreatitis, Alzheimer's disease, anorexia,
CC   atherosclerosis, coronary conditions (e.g. myocardial infarction),
CC   cancer, diabetes, endometriosis, fever, glomerulonephritis, hyperalgesia,
CC   inflammatory bowel disease, ischaemia, pain, Parkinson's disease,
CC   psoriasis and septic shock. The present sequence was used in a sequence
CC   homology comparison.
XX
SQ   Sequence   280 AA;


  Query Match             100.0%;  Score 941;  DB 22;  Length 280;
  Best Local Similarity   100.0%;  Pred. No. 2.6e-67;
  Matches  161;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      41 dsvcpqgkyihpqnnsicctkchkgtylyndcpgpgqdtdcrecesgsftasenhlrhcl 100

Qy      61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     101 sckkcrkemgqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 160

Qy     121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
           |||||||||||||||||||||||||||||||||||||||||
Db     161 kqntvctchagffirenecvscsnckkslectklclpqien 201


RESULT   8
AAR70108
ID   AAR70108 standard; Protein; 309 AA.
XX
AC   AAR70108;
XX
DT   10-NOV-1995  (first entry)
XX
DE   TNF-R-GBPH fusion protein.
XX
KW   Hybrid peptide; malaria parasite; Plasmodium falciparum; fusion protein;
KW   red blood cell; cytokine receptor; glycophorin binding peptide 130;
KW   GBP 130; GBPH; glycophorin binding peptide homologue; glycophorin A;
KW   tumour necrosis factor receptor; TNF-R.
XX
OS   Chimeric Homo sapiens.
OS   Chimeric Plasmodium falciparum.
XX
FH   Key             Location/Qualifiers
FT   Misc_difference 230..269
FT                   /label= repeat_region
FT                   /note= "can be repeated n times, where n is a real
FT                         number"
XX
PN   WO9506737-A.
XX
PD   09-MAR-1995.
XX
PF   01-SEP-1994;   94WO-GB01900.
XX
PR   03-SEP-1993;   93GB-0018350.
PR   23-AUG-1994;   94GB-0017021.
XX
PA   (PREN/) PRENDERGAST K F.
XX
PI   Prendergast KF;
XX
DR   WPI; 1995-115452/15.
XX
PT   New hybrid peptide(s) for binding cytokine(s) - comprising a
PT   malaria parasite peptide capable of binding a red blood cell and
PT   a receptor peptide.
XX
PS   Example A; Fig. 54; 93pp; English.
XX
CC   Hybrid peptides for binding cytokines, comprising a malaria parasite
CC   (Plasmodium falciparum) peptide (capable of binding to a red blood
CC   cell (RBC)) and a receptor peptide are claimed. AAR70108-29 are examples
CC   of these hybrid peptides. AAR70108 is a fusion of tumour necrosis factor
CC   receptor (in accordance with H Loetscher et al Cell, Vol. 61, 351-359)
CC   and glycophorin binding protein (GBP) homologue (GBPH). The
CC   use of cytokine receptors not normally found on RBCs means that the
CC   cytokine can bind harmlessly to the RBC without deleterious effect.
CC   The RBC protects the hybrid peptides from excretion from the kidney, and
CC   due to steric hindrance prevents the cytokines binding to a receptor in
CC   another cell. GBP 130 or GBPH are the pref. malaria parasite peptides
CC   used, others include EBA 175 (175 kDa erythrocyte binding antigen),
CC   PMMSA (pre major merozoite surface antigen) and the Duffy binding
CC   receptor molecule (eg. exhibited by Plasmodium vivax). These peptides
CC   bind to pref. glycophorin A, B and C, sialic glycoproteins, found on the
CC   surface of RBCs. The hybrid peptides are thus used to lower the levels of
CC   free cytokines in the circulation to reduce pathological damage.
XX
SQ   Sequence   309 AA;


  Query Match             100.0%;  Score 941;  DB 16;  Length 309;
  Best Local Similarity   100.0%;  Pred. No. 2.8e-67;
  Matches  161;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      29 dsvcpqgkyihpqnnsicctkchkgtylyndcpgpgqdtdcrecesgsftasenhlrhcl 88

Qy      61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      89 sckkcrkemgqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 148

Qy     121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
           |||||||||||||||||||||||||||||||||||||||||
Db     149 kqntvctchagffirenecvscsnckkslectklclpqien 189


RESULT   9
AAW89229
ID   AAW89229 standard; Protein; 311 AA.
XX
AC   AAW89229;
XX
DT   04-MAR-1999  (first entry)
XX
DE   Tumour necrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin;
KW   OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
KW   inflammation; apoptosis.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO9849305-A1.
XX
PD   05-NOV-1998.
```

```
XX
PF   29-APR-1998;   98WO-US08631.
XX
PR   01-MAY-1997;   97US-0850188.
XX
PA   (AMGE-) AMGEN INC.
XX
PI   Boyle WJ, Wooden S;
XX
DR   WPI; 1999-044661/03.
XX
PT   New chimeric osteoprotegerin polypeptides - contain the
PT   osteoprotegerin dimerisation domain and a heterologous sequence,
PT   useful to treat TNF and TNFR-mediated disorders
XX
PS   Example 1; Fig 4; 92pp; English.
XX
CC   The present invention describes a chimeric polypeptide (A1), comprising
CC   an osteoprotegerin (OPG) dimerisation domain fused to a heterologous
CC   amino acid sequence. Also described are: (1) a multimer polypeptide
CC   comprising covalently associated A1 monomers; (2) an isolated nucleic
CC   acid encoding A1; (3) an expression vector comprising the nucleic acid
CC   sequence; and (4) a host cell transformed or transfected with the
CC   expression vector so that the nucleic acid is expressible. The products
CC   from the present invention are useful to treat a variety of disorders
CC   including those related to receptor binding. Compositions comprising
CC   tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras
CC   are used to treat TNF and TNFR mediated disorders such as inflammation,
CC   autoimmune diseases and disorders related to excessive apoptosis. The
CC   chimeras are also useful for detecting molecules which interact with
CC   fused heterologous sequences to identify potential new receptors and
CC   ligands. The present sequence represents a TNFbp/OPG construct from
CC   the example of the present invention for creating TNFbp/OPG fusion
CC   proteins.
XX
SQ   Sequence   311 AA;


  Query Match             100.0%;  Score 941;  DB 20;  Length 311;
  Best Local Similarity   100.0%;  Pred. No. 2.8e-67;
  Matches  161;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      41 dsvcpqgkyihpqnnsicctkchkgtylyndcpgpgqdtdcrecesgsftasenhlrhcl 100

Qy      61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     101 scskcrkemgqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 160

Qy     121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
           |||||||||||||||||||||||||||||||||||||||||
Db     161 kqntvctchagfflrenecvscsnckkslectklclpqien 201


RESULT  10
AAW33360
ID   AAW33360 standard; Protein; 336 AA.
XX
AC   AAW33360;
XX
DT   19-MAR-1998  (first entry)
XX
DE   TBP(20-190)/hCG-beta fusion protein.
XX
KW   Fusion protein; thrombopoietin; TPO; human chorionic gonadotrophin;
KW   beta subunit; hCG-beta.
XX
OS   Homo sapiens.
XX
PN   WO9730161-A1.
XX
PD   21-AUG-1997.
XX
PF   20-FEB-1997;   97WO-US02315.
XX
PR   20-FEB-1996;   96US-0011936.
XX
PA   (ISTF ) ARS APPLIED RES SYSTEMS HOLDING NV.
XX
PI   Campbell RK,  Chappel SC,  Jameson BA;
XX
DR   WPI; 1997-425036/39.
DR   N-PSDB; AAT94022.
XX
PT   Hybrid dimeric protein comprising two co-expressed units - each
PT   based on receptor or ligand and a subunit of a heterodimeric
PT   hormone, especially FSH, for inducing follicular maturation
XX
PS   Example; Pages 39-40; 60pp; English.
XX
CC   A novel fusion protein comprises 2 dimer forming co-expressed amino
CC   acid sequences, each consisting of a homodimeric or heterodimeric
CC   receptor chain or ligand, with ligand-receptor binding activity,
CC   bound directly or via a peptide linker to a subunit of a
CC   heterodimeric protein hormone capable of forming a heterodimer with
CC   the hormone's other subunits. The fusion protein, e.g. the
CC   thrombopoietin (TPO)/human chorionic gonadotrophin-beta subunit
CC   (hCG-beta) fusion protein denoted by the present sequence,
CC   significantly increases the biological activity of the hormone
CC   component, reducing the requirement for hormone itself and the
CC   number of injections needed.
XX
SQ   Sequence   336 AA;


  Query Match             100.0%;  Score 941;  DB 18;  Length 336;
  Best Local Similarity   100.0%;  Pred. No. 3.1e-67;
  Matches  161;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DSVCPQGKYIHPQNNSICCIKCHKGTYLYNDCPGPGQDIDCRECESGSFIASENHLRHCL 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      23 dsvcpqgkyihpqnnsicctkchkgtylyndcpgpqqdtderecesgsftasenhlrhcl 82

Qy      61 SCSKCRKEMGQVEISSCIVDRDIVCGCRKNQYRHYWSENLFQCFNCSLCLNGIVHLSCQE 120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      83 scskcrkemgqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 142

Qy     121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
           |||||||||||||||||||||||||||||||||||||||||
Db     143 kqntvctchagfflrenecvscsnckkslectklclpqien 183


RESULT  11
AAW89228
ID   AAW89228 standard; Protein; 366 AA.
XX
AC   AAW89228;
XX
DT   04-MAR-1999  (first entry)
XX
DE   Tumour necrosis factor bp/osteoprotegerin construct TNFbp/248.
XX
KW   Tumour necrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin;
KW   OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
KW   inflammation; apoptosis.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO9849305-A1.
XX
PD   05-NOV-1998.
XX
PF   29-APR-1998;   98WO-US08631.
XX
```

PR 01-MAY-1997; 97US-0850188.
XX
PA (AMGE-) AMGEN INC.
XX
PI Boyle WJ, Wooden S;
XX
DR WPI; 1999-034661/03.
XX
PT New chimeric osteoprotegerin polypeptides - contain the
PT osteoprotegerin dimerisation domain and a heterologous sequence,
PT useful to treat TNF and TNFR-mediated disorders
XX
PS Example 1; Fig 4; 92pp; English.
XX
CC The present invention describes a chimeric polypeptide (A1), comprising
CC an osteoprotegerin (OPG) dimerisation domain fused to a heterologous
CC amino acid sequence. Also described are: (1) a multimer polypeptide
CC comprising covalently associated A1 monomers; (2) an isolated nucleic
CC acid encoding A1; (3) an expression vector comprising the nucleic acid
CC sequence; and (4) a host cell transformed or transfected with the
CC expression vector so that the nucleic acid is expressible. The products
CC from the present invention are useful to treat a variety of disorders
CC including those related to receptor binding. Compositions comprising
CC tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras
CC are used to treat TNF and TNFR-mediated disorders such as inflammation,
CC autoimmune diseases and disorders related to excessive apoptosis. The
CC chimeras are also useful for detecting molecules which interact with
CC fused heterologous sequences to identify potential new receptors and
CC ligands. The present sequence represents a TNFbp/OPG construct from
CC the example of the present invention for creating TNFbp/OPG fusion
CC proteins.
XX
SQ Sequence 366 AA;

Query Match 100.0%; Score 941; DB 20; Length 366;
Best Local Similarity 100.0%; Pred. No. 3.3e-67;
Matches 161; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
Db 41 dsvcpqgkyihpqnnsicctkchkgtylyndcpgpgqdtdcrecesgsftasenhlrhcl 100

Qy 61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
Db 101 scskcrkemgqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 160

Qy 121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
Db 161 kqntvctchagtflrenecvscsnckkslectklclpqien 201

RESULT 12
AAR07449
ID AAR07449 standard; protein; 371 AA
XX
AC AAR07449;
XX
DT 29-JAN-1991 (first entry)
XX
DE Tumour Necrosis Factor Binding Protein from pTNF-BP15 cDNA.
XX
KW Tumour necrosis factor binding protein; TNF-BP; TNF-receptor;
KW pTNF-BP15; infectious disease; parasitic disease; cachexia;
KW autoimmune disease; shock.
XX
OS Homo sapiens.
XX
PN EP394438-A.
XX
PD 24-OCT-1990.
XX
PF 06-APR-1990; 90EP-0106624.
XX
PR 21-JUN-1989; 89DE-3920282.
PR 21-APR-1989; 89DE-3913101.
XX
PA (BOEH) BOEHRINGER INGELHEIM INT.
XX
PI Hauptmann R, Himmler A, Maurer-Fogy I, Stratowa C;
XX
DR WPI; 1990-321987/43.
DR N-PSDB; AAQ06282.
XX
PT DNA encoding TNF binding protein and TNF receptor - used in
PT tumour treatment and to understand mechanisms of TNF action
XX
PS Disclosure; Fig 1(1-3); 51pp; German.
XX
CC Clone pTNF-BP15 was used to contruct pADTNF BP, for transfection of
CC e.g. COS7 cells. The expressed proteins are useful
CC prophylactically and therapeutically to control disorders which
CC involve the damaging effects of TNF-alpha or -beta (e.g. infectious or
CC parasitic diseases, shock, cachexia, autoimmune diseases, adult
CC respiratory distress syndrome etc., or side effects of treatment with
CC TNF-alpha). They can also be used as diagnostic reagents for
CC assaying TNF and in studies of TNF receptor interactions.
CC See also AAQ06281 Q06285.
XX
SQ Sequence 371 AA;

Query Match 100.0%; Score 941; DB 11; Length 371;
Best Local Similarity 100.0%; Pred. No. 3.3e-67;
Matches 161; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
Db 41 dsvcpqgkyihpqnnsiccTkchkgtylyndcpgpgqdtdcrecesgsftasenhlrhcl 100

Qy 61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
Db 101 scskcrkemgqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 160

Qy 121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
Db 161 kqntvctchagtflrenecvscsnckkslectklclpqien 201

RESULT 13
AAW89227
ID AAW89227 standard; Protein; 397 AA.
XX
AC AAW89227;
XX
DT 04-MAR-1999 (first entry)
XX
DE Tumour necrosis factor bp/osteoprotegerin construct TNFbp/217.
XX
KW Tumour necrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin;
KW OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
KW inflammation; apoptosis.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9849305-A1.
XX
PD 05-NOV-1998.
XX
PF 29-APR-1998; 98WO-US08631.
XX
PR 01-MAY-1997; 97US-0850188.
XX
PA (AMGE-) AMGEN INC.
XX

PI Boyle WJ, Wooden S;
XX
DR WPI; 1999-034661/03.
XX
PT New chimeric osteoprotegerin polypeptides - contain the
PT osteoprotegerin dimerisation domain and a heterologous sequence,
PT useful to treat TNF and TNFR-mediated disorders
XX
PS Example 1; Fig 4; 92pp; English.
XX
CC The present invention describes a chimeric polypeptide (A1), comprising
CC an osteoprotegerin (OPG) dimerisation domain fused to a heterologous
CC amino acid sequence. Also described are: (1) a multimer polypeptide
CC comprising covalently associated A1 monomers; (2) an isolated nucleic
CC acid encoding A1; (3) an expression vector comprising the nucleic acid
CC sequence, and (4) a host cell transformed or transfected with the
CC expression vector so that the nucleic acid is expressible. The products
CC from the present invention are useful to treat a variety of disorders
CC including those related to receptor binding. Compositions comprising
CC tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras
CC are used to treat TNF and TNFR-mediated disorders such as inflammation,
CC autoimmune diseases and disorders related to excessive apoptosis. The
CC chimeras are also useful for detecting molecules which interact with
CC fused heterologous sequences to identify potential new receptors and
CC ligands. The present sequence represents a TNFbp/OPG construct from
CC the example of the present invention for creating TNFbp/OPG fusion
CC proteins.
XX
SQ Sequence 397 AA;

Query Match 100.0%; Score 941; DB 20; Length 397;
Best Local Similarity 100.0%; Pred. No. 3.6e-67;
Matches 161; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DSVCPQDKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
Db 41 dsvcpqqkyihpqnnsicctkchkgtylyndcpqpqqdtdcrecesqsftasenhlrhcl 100

Qy 61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
Db 101 scskcrkemqqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 160

Qy 121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
Db 161 kqntvctchaqffirenecvscsnckksleCtklclpqien 201

RESULT 14
AAW89226
ID AAW89226 standard; Protein; 417 AA.
XX
AC AAW89226;
XX
DT 04-MAR-1999 (first entry)
XX
DE Tumour necrosis factor bp/osteoprotegerin construct TNFbp/196.
XX
KW Tumour necrosis factor receptor 1; TNFR 1; inhibitor; osteoprotegerin;
KW OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
KW inflammation; apoptosis.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9849305-A1.
XX
PD 05-NOV-1998.
XX
PF 29-APR-1998; 98WO-US08631.
XX
PR 01-MAY-1997; 97US-0850188.
XX
PA (AMGE-) AMGEN INC.
XX
PI Boyle WJ, Wooden S;
XX
DR WPI; 1999-034661/03.
XX
PT New chimeric osteoprotegerin polypeptides - contain the
PT osteoprotegerin dimerisation domain and a heterologous sequence,
PT useful to treat TNF and TNFR-mediated disorders
XX
PS example 1; Fig 4; 92pp; English.
XX
CC The present invention describes a chimeric polypeptide (A1), comprising
CC an osteoprotegerin (OPG) dimerisation domain fused to a heterologous
CC amino acid sequence. Also described are: (1) a multimer polypeptide
CC comprising covalently associated A1 monomers; (2) an isolated nucleic
CC acid encoding A1; (3) an expression vector comprising the nucleic acid
CC sequence; and (4) a host cell transformed or transfected with the
CC expression vector so that the nucleic acid is expressible. The products
CC from the present invention are useful to treat a variety of disorders
CC including those related to receptor binding. Compositions comprising
CC tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras
CC are used to treat TNF and TNFR mediated disorders such as inflammation,
CC autoimmune diseases and disorders related to excessive apoptosis. The
CC chimeras are also useful for detecting molecules which interact with
CC fused heterologous sequences to identify potential new receptors and
CC ligands. The present sequence represents a TNFbp/OPG construct from
CC the example of the present invention for creating TNFbp/OPG fusion
CC proteins.
XX
SQ Sequence 417 AA;

Query Match 100.0%; Score 941; DB 20; Length 417;
Best Local Similarity 100.0%; Pred. No. 3.7e-67;
Matches 161; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DSVCPQDKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
Db 41 dsvcpqqkyihpqnnsicctkchkgtylyndcpqpqqdtdcrecesqsftasenhlrhcl 100

Qy 61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
Db 101 scskcrkemqqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 160

Qy 121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
Db 161 kqntvctchaqffirenecvscsnckksleCtklclpqien 201

RESULT 15
AAW89224
ID AAW89224 standard; Protein; 420 AA.
XX
AC AAW89224;
XX
DT 04-MAR-1999 (first entry)
XX
DE Tumour necrosis factor bp/osteoprotegerin construct TNFbp/OPG.
XX
KW Tumour necrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin;
KW OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
KW inflammation; apoptosis.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9849305-A1.
XX
PD 05-NOV-1998.
XX
PF 29-APR-1998; 98WO-US08631.
XX

PR 01-MAY-1997; 97US-0850188.
XX
PA (AMGE-) AMGEN INC.
XX
PI Boyle WJ, Wooden S;
XX
DR WPI; 1999-034661/03.
XX
PT New chimeric osteoprotegerin polypeptides - contain the
PT osteoprotegerin dimerisation domain and a heterologous sequence,
PT useful to treat TNF and TNFR-mediated disorders
XX
PS Example 1; Fig 4; 92pp; English.
XX
CC The present invention describes a chimeric polypeptide (A1), comprising
CC an osteoprotegerin (OPG) dimerisation domain fused to a heterologous
CC amino acid sequence. Also described are: (1) a multimer polypeptide
CC comprising covalently associated A1 monomers; (2) an isolated nucleic
CC acid encoding A1; (3) an expression vector comprising the nucleic acid
CC sequence; and (4) a host cell transformed or transfected with the
CC expression vector so that the nucleic acid is expressible. The products
CC from the present invention are useful to treat a variety of disorders
CC including those related to receptor binding. Compositions comprising
CC tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras
CC are used to treat TNF and TNFR mediated disorders such as inflammation,
CC autoimmune diseases and disorders related to excessive apoptosis. The
CC chimeras are also useful for detecting molecules which interact with
CC fused heterologous sequences to identify potential new receptors and
CC ligands. The present sequence represents a TNFbp/OPG construct from
CC the example of the present invention for creating TNFbp/OPG fusion
CC proteins.
XX
SQ Sequence 420 AA;

Query Match 100.0%; Score 941; DB 20; Length 420;
Best Local Similarity 100.0%; Pred. No. 3.7e-67;
Matches 161; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 41 dsvcpqgkyihpqnnsicctkchkgtylyndcpgpgqdtdcrecesgsftasenhlrhcl 100

Qy 61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 101 scskcrkemgqveissctvdrdtvcgcrknqyrhywsenlfqcfncslclngtvhlscqe 160

Qy 121 KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
|||||||||||||||||||||||||||||||||||||||||||
Db 161 kqntvctchagffirenecvscsnckkslectklclpqien 201

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Job time: 5780 sec